



UNITED STATES PATENT AND TRADEMARK OFFICE

ml

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,506	02/05/2002	Masatoshi Imai	59227/SONYP	2876
24201 7590 05/21/2007 FULWIDER PATTON LLP HOWARD HUGHES CENTER 6060 CENTER DRIVE, TENTH FLOOR LOS ANGELES, CA 90045			EXAMINER NGUYEN, CAM LINH T	
			ART UNIT 2161	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/072,506

Applicant(s)

IMAI, MASATOSHI

Examiner

CamLinh Nguyen

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/26/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/22/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is response to amendment filed on 3/26/2007.
2. Applicant's amendments to the Office Action are acknowledged. Consequently, rejection to claims 1 – 18 under 35 U.S.C. 103(a) is withdrawn.
3. Claims 1 – 18 are currently pending.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 1/22/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1 – 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is rejected as non-statutory for not having a tangible result. The phrase "able to be implemented in a data processing system" does not necessarily require the method processed in a computer; claim 1 as being directed towards a series of mental steps. All the steps of the claimed method can be carried out within the human mind. Mental steps are not patent eligible subject matter for the reason that the mental steps are insufficient to produce a useful, concrete, and

Art Unit: 2161

tangible result, and pass the practical application test set forth in State Street. To be patent-eligible, abstract steps must produce either a physical transformation or a useful, concrete and tangible result. Therefore, claim 1 is an abstract idea. Functional descriptive matter Computer program without computer readable media and computer can be considered abstract.

For suggestion how to overcome this rejection, applicant need to produce a tangible result based on these devices such as registering or storing the registered word in a computer device, and must specify what action will take place for the determining step if it's inhibited to register the unknown word.

Claims 4 and 11 are rejected as non-statutory as same reason as in claim 1. Further, claims 4 includes "means for..." The term means for" in this case applicant referred to as the comparator. However, Applicant fails to define whether the comparator is a software or hardware. In the process of examination, the term "comparator" can be interpreted as software. This can be interpreted as being software per se. The claims, therefore, is lacking the present of a hardware to execute this software.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 – 8, 11 – 15, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoshi et al (11-126155, date of publication 11.05.1999) [provided by applicant].

♦ As per claims 1, 4, 11,

Satoshi discloses a sort processing method for comparing magnitudes of pieces of input data with each other and rearranging said pieces of input data in accordance with results of comparison (see the abstract), able to be implemented in a data processing system, said method comprising the step of:

- “Repeating basic processes, each of which is composed of a combination of comparison processing and selection processing, said comparison processing being used to compare magnitudes of pieces of input data with each other by using data comparators and said selection processing being used to select pieces of input data by using data selectors” See claim 1, paragraph 0006. In particular:
 - “The basic process” corresponds to the process of execution of an instruction in which includes a comparison and selection (See Fig. 4)
- “Wherein the total number of said basic processes is equal to the number of combinations of pieces of input data to be compared” See paragraph 0014.
- Basic blocks each of which includes a first stage including basic cells and a second stage including basic cells (input data). See Fig. 4.
- wherein the number of basic cells in the first stage of the basic block is greater than the number of basic cells in the second stage of the basic block (see Fig. 4, claim 2, paragraphs 0012 - 0014), wherein Satoshi discloses two stages of sorting. Therefore, the number of basic cells in the first stage of the basic block is greater than the number of basic cells in the second stage of the basic block.
- Parallel processing: see Fig. 4, paragraph 0008 – 0009, 0020.

Art Unit: 2161

◆ As per claims 2, 6, 13,

- "A sort processing method according to claim 1 wherein the size of sort processing is increased by raising the number of basic processes to keep up with an increase in the number of pieces of input data" See paragraph 0012 – 0014.

◆ As per claims 3, 7, 14,

- "A sort processing method according to claim 1 whereby, if necessary, a clock signal is used for synchronizing said pieces of input data" See paragraph 0011 – 0012.

◆ As per claims 5, 8, 12, 15,

- "A sort processing apparatus according to claim 4 wherein said first data selector is provided with a pair of data selectors used for receiving a pair of pieces of input data; and said first data selector is controlled on the basis of said first select signal so as to allow output terminals of said data selectors to output said pair of pieces of input data in a predetermined magnitude order". See Fig. 1- 4 and texts.

◆ As per claim 18,

Claim 18 is rejected based on the rejection of claims 11 and 15.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2161

10. Claims 9 – 10, 16 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoshi et al (11-126155, date of publication 11.05.1999) [provided by applicant] further in view of Lewis et al (U.S. 6,775,667).

♦ As per claims 9, 16,

Satoshi does not clearly disclose:

“A sort processing apparatus according to claim 4 wherein, if the number of said pieces of input data is odd, an invalid piece of input data is added to said valid pieces of input data to make the total number of said pieces of input data even, and said invalid piece of input data is set at a value greater than a maximum among said valid pieces of input data or a value smaller than a minimum among said valid pieces of input data”.

However, Lewis, on the other hand, discloses a sort processing method that disclosed this limitation in Col. 11, lines 13 – 15.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Lewis into the system of Satoshi because the combination would speed up the sort processing.

♦ As per claims 10, 17, Satoshi/Lewis disclose:

- “A sort processing apparatus according to claim 4 wherein said first basic cells are laid out over a rectangular area” See Fig. 2 – 3 Lewis and Fig. 1 – 4 of Satoshi.

Response to Arguments

11. Applicant's arguments with respect to claims 1 - 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CamLinh Nguyen whose telephone number is 571 – 272 - 4024. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571 – 272 - 4146. The fax phone number for the organization where this application or proceeding is assigned is 571 – 273 - 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen, Cam-Linh

Art Unit 2161

A handwritten signature in dark ink, appearing to read 'Nguyen Cam-Linh', with a horizontal line drawn underneath the signature.